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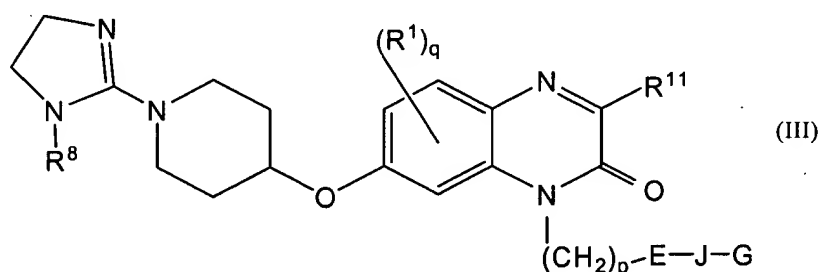
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IN THE CLAIMS:

Please cancel claims 1-4 without prejudice and amend claims 13-14 and 16 to read as follows. All claims pending, including those unchanged by the present amendment, are reproduced below for the convenience of the Examiner.

1. -4. (Canceled)

5. (Previously amended) A compound of formula III:



wherein:

R^8 is selected from the group consisting of H, -OH, C_{1-8} alkyl, C_{2-8} alkenyl, C_{2-8} alkynyl, C_{3-8} cycloalkyl, C_{6-12} carbocyclic aryl, a five to ten membered heterocyclic ring system having 1-4 heteroatoms selected from the group consisting of N, O and S; and C_{1-6} alkylheterocyclic ring system having in the ring system 5 to 10 atoms with 1 to 4 of such atoms being selected from the group consisting of N, O and S;

R^1 is a member selected from the group consisting of H, C_{1-8} alkyl, C_{2-8} alkenyl, C_{2-8} alkynyl, C_{3-8} cycloalkyl, halogen, polyhaloalkyl, C_{0-8} alkyl-C(=O)OH, C_{0-8} alkyl-C(=O)O- C_{1-8} alkyl, -CN, -NO₂, C_{1-8} alkyl-OH, C_{0-8} alkyl-SH, -C(=O)NR²R³, -O-R² and -O-C(=O)R², an unsubstituted amino group, a mono- or di-substituted amino group, wherein the substituted amino groups are independently substituted by at least one member selected from the group consisting of H, C_{1-8} alkyl, C_{2-8} alkenyl, C_{2-8} alkynyl, C_{3-8} cycloalkyl, polyhaloalkyl, -SO₂R², C_{0-8} alkyl-C(=O)OH and C_{0-8} alkyl-C(=O)O- C_{1-8} alkyl, where R² and R³ is as described above;

R^2 is selected from the group consisting of H, -OH, C_{1-8} alkyl, C_{2-8} alkenyl, C_{2-8} alkynyl, C_{3-8} cycloalkyl, C_{6-12} carbocyclic aryl, a five to ten membered heterocyclic ring system having 1-4 heteroatoms selected from the group consisting of N, O and S; and C_{1-6} alkylheterocyclic ring system having in the ring system 5 to 10 atoms with 1 to 4 of such atoms being selected from the group consisting of N, O and S;

q is 0-3;

R^{11} is a member selected from the group consisting of H, C_{1-8} alkyl, C_{2-8} alkenyl, C_{2-8} alkynyl, C_{3-8} cycloalkyl, C_{6-12} carbocyclic aryl, C_{1-6} alkylaryl, C_{1-6} alkyl- C_{3-8} cycloalkyl, $-O-R^2$, $-O-C(=O)R^2$, $-C_{1-8}$ alkyl- $O-R^{10}$, $-C_{1-8}$ alkyl- $O-C(=O)R^{10}$, $-C_{1-8}$ alkyl- $C(=O)OR^{10}$, $-C_{1-8}$ alkyl- $O-C(=O)OR^{10}$, $-C_{1-8}$ alkyl- $C(=O)NR^{10}R^{10}$, $-C_{1-8}$ alkyl- $NR^{10}R^{10}$, $-C_{1-8}$ alkyl- $NR^{10}C(=O)R^{10}$, $-SR^{10}$, where R^2 is as described above and R^{10} is a member selected from the group consisting of H, C_{1-8} alkyl, C_{2-8} alkenyl, C_{2-8} alkynyl, and wherein when two R^{10} groups are present they may be taken together to form a saturated or unsaturated ring with the atom to which they are both attached;

p is an integer from 0-2;

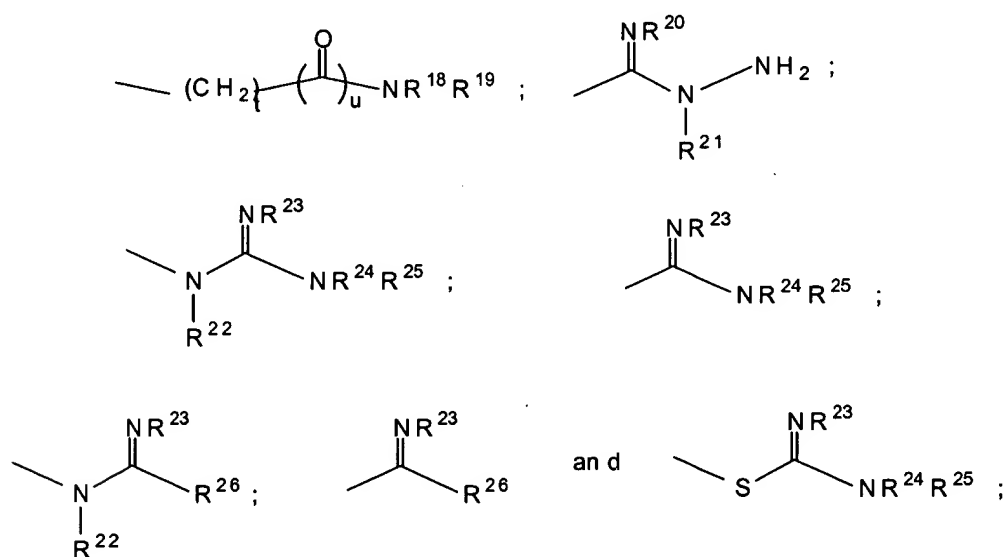
E is a member selected from the group consisting of a direct link, -O-, $-N(-R^{11})-$, where R^{11} is as set forth above, phenylene, a bivalent 5 to 12 member heteroaryl group having 1 to 4 heteroatoms selected from the group consisting of N, O and S, and a five to ten membered non-aromatic bivalent heterocyclic ring system having 1-4 heteroatoms selected from the group consisting of N, O and S, wherein said heteroaryl and said non-aromatic heterocyclic ring structure may be independently substituted by from 0 to 5 R^{14} groups;

J is a member selected from the group consisting of a direct link, a bivalent C_{3-8} cycloalkyl group, phenylene, a 5 to 12 member bivalent heteroaryl group having 1 to 4 heteroatoms selected from the group consisting of N, O and S, and a five to ten membered non-aromatic bivalent heterocyclic ring system having 1-4 heteroatoms selected from the group consisting of N, O and S wherein said heteroaryl and said non-aromatic heterocyclic ring structure may be independently substituted by from 0 to 5 R^{14} groups;

each R^{14} group is a member selected from the group consisting of H, C_{1-8} alkyl,

44 C₂₋₈alkenyl, C₂₋₈alkynyl, C₃₋₈cycloalkyl, halogen, polyhaloalkyl, C₀₋₈alkyl-C(=O)OH,
 45 C₀₋₈alkyl-C(=O)O-C₁₋₈alkyl, -CN, -NO₂, C₁₋₈alkyl-OH, C₀₋₈alkyl-SH, -O-R² and -O-C(=O)R², an
 46 unsubstituted amino group, a mono- or di-substituted amino group, wherein the substituted
 47 amino groups are independently substituted by at least one member selected from the group
 48 consisting of H, C₁₋₈alkyl, C₂₋₈alkenyl, C₂₋₈alkynyl, C₃₋₈cycloalkyl, polyhaloalkyl,
 49 C₀₋₈alkyl-C(=O)OH and C₀₋₈alkyl-C(=O)O-C₁₋₈alkyl;

50 G is a member selected from the group consisting of: H; -CN; -OR¹⁷;



51
 52 wherein

53 t is an integer from 0 to 6,

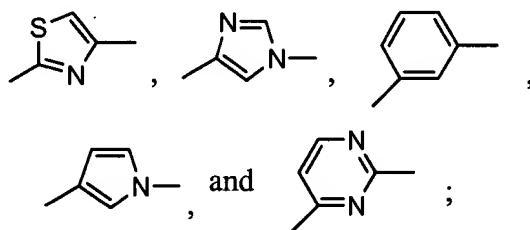
54 u is the integer 0 or 1, and R¹⁷, R¹⁸, R¹⁹, R²⁰, R²¹, R²², R²³, R²⁴, R²⁵ and R²⁶ are
 55 independently selected from the group consisting of H, -OH, C₁₋₈alkyl, C₂₋₈alkenyl, C₂₋₈alkynyl,
 56 C₃₋₈cycloalkyl, C₆₋₁₂carbocyclic aryl, a five to ten membered heterocyclic ring system having 1-4
 57 heteroatoms selected from the group consisting of N, O and S; and C₁₋₆alkylheterocyclic ring
 58 system having in the ring system 5 to 10 atoms with 1 to 4 of such atoms being selected from the
 59 group consisting of N, O and S; where R¹⁸ taken with R¹⁹, R²² taken with either of R²⁴ and R²⁵,
 60 and R²⁴ taken with R²⁵, can each independently form a 5 to 6 membered heterocyclic ring having
 61 from 1 to 4 atoms selected from the group consisting of N, O and S;

62 with the proviso that when G is H, -CN, -OR¹⁷, either E or J must contain at least one N
63 atom;
64 or a pharmaceutically acceptable diastereomer, salt, hydrate, and solvate thereof.

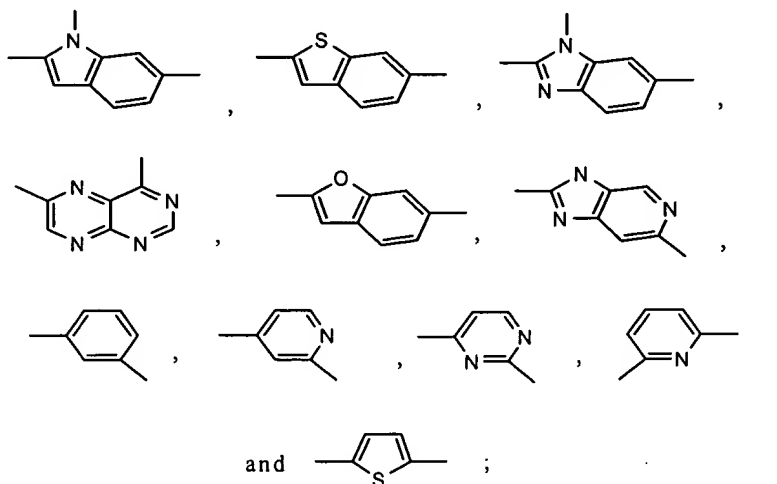
1 6. (Original) A compound of claim 5, wherein R¹ and R⁸ are independently a
2 lower alkyl group and R¹¹ is hydrogen or is a C₁ to C₈ alkyl group.

1 7. (Original) A compound of claim 5, wherein q is zero and R⁸ is lower alkyl
2 group.

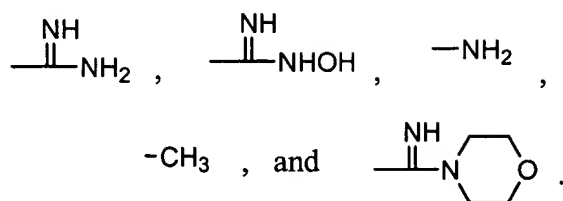
1 8. (Original) A compound of claim 5, wherein:
2 R⁸ is a methyl group;
3 p is an integer from 1-2;
4 E is selected from the group consisting of: a direct link,



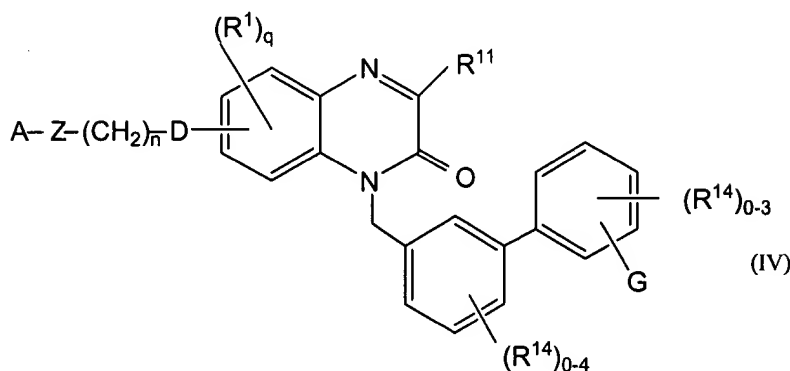
- 6 J is selected from the group consisting of:



8 and G is selected from the group consisting of:

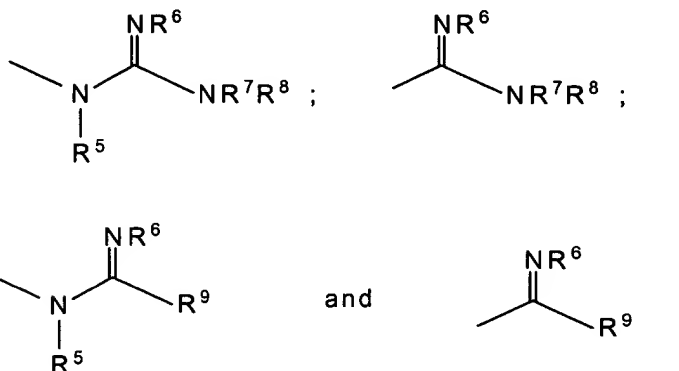


9
1 9. (Previously amended) A compound of formula IV:



2
3 wherein:

4 A is a member selected from the group consisting of: R^2 , $-\text{NR}^3\text{R}^4$, $-\text{C}(=\text{O})\text{NR}^3\text{R}^4$,



5
6 where R^2 , R^3 , R^4 , R^5 , R^6 , R^7 , R^8 , and R^9 are independently selected from the group consisting of
7 H, -OH, C_{1-8} alkyl, C_{2-8} alkenyl, C_{2-8} alkynyl, C_{3-8} cycloalkyl, C_{6-12} carbocyclic aryl, a five to ten
8 membered heterocyclic ring system having 1-4 heteroatoms selected from the group consisting
9 of N, O and S; and C_{1-6} alkylheterocyclic ring system having in the ring system 5 to 10 atoms
10 with 1 to 4 of such atoms being selected from the group consisting of N, O and S; where R^6
11 taken with either of R^7 and R^8 , and/or R^7 taken with R^8 , can each form a 5 to 6 membered

12 heterocyclic ring having from 1 to 4 atoms selected from the group consisting of N, O and S;

13 Z is a member selected from the group consisting of a direct link, C₁₋₈alkyl,
14 C₃₋₈cycloalkyl, C₂₋₈alkenyl, C₂₋₈alkynyl, C₁₋₈carbocyclic aryl, or a five to ten membered
15 heterocyclic ring system having 1-4 heteroatoms selected from the group consisting of N, O and
16 S;

17 n is 0-3;

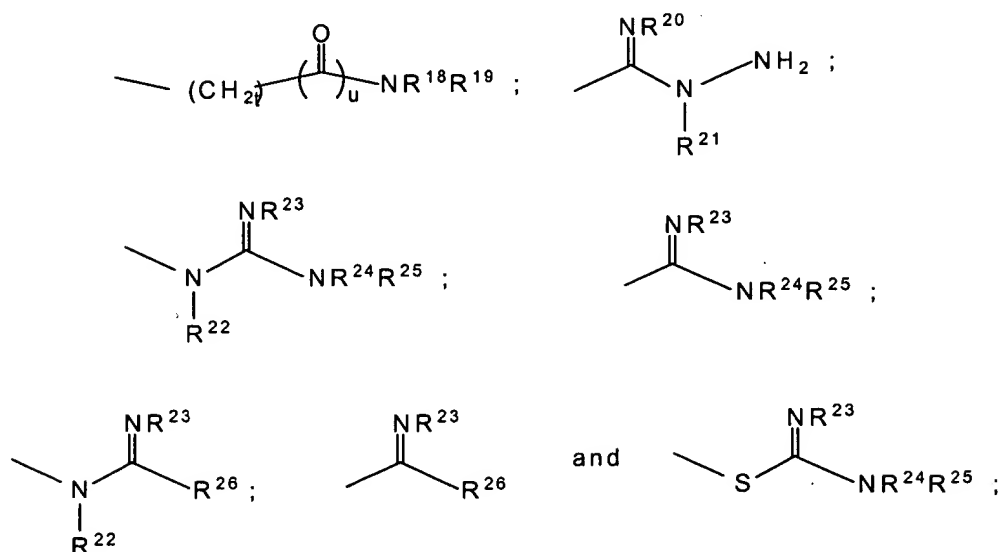
18 D is a member selected from the group consisting of: -CH₂-, -O-, -N R², -C(=O)-, -S-,
19 -SO₂-, -SO₂-NR², -NR²-SO₂-, -OC(=O)-, -C(=O)NR², and -NR²-C(=O)-;

20 R¹ and R¹⁴ are independently a member selected from the group consisting of H,
21 C₁₋₈alkyl, C₂₋₈alkenyl, C₂₋₈alkynyl, C₃₋₈cycloalkyl, halogen, polyhaloalkyl, C₀₋₈alkyl-C(=O)OH,
22 C₀₋₈alkyl-C(=O)O-C₁₋₈alkyl, -CN, -NO₂, C₁₋₈alkyl-OH, C₀₋₈alkyl-SH, -O-R² and -O-C(=O)R², an
23 unsubstituted amino group, a mono- or di-substituted amino group, wherein the substituted
24 amino groups are independently substituted by at least one member selected from the group
25 consisting of H, C₁₋₈alkyl, C₂₋₈alkenyl, C₂₋₈alkynyl, C₃₋₈cycloalkyl, polyhaloalkyl,
26 C₀₋₈alkyl-C(=O)OH and C₀₋₈alkyl-C(=O)O-C₁₋₈alkyl;

27 q is 0-3;

28 R¹¹ is a member selected from the group consisting of H, C₁₋₈alkyl, C₂₋₈alkenyl,
29 C₂₋₈alkynyl, C₃₋₈cycloalkyl, C₆₋₁₂carbocyclic aryl, C₁₋₆alkylaryl, C₁₋₆alkyl-C₃₋₈cycloalkyl, -O-R²,
30 -O-C(=O)R², -C₁₋₈alkyl-O-R¹⁰, -C₁₋₈alkyl-O-C(=O)R¹⁰, -C₁₋₈alkyl-C(=O)OR¹⁰,
31 -C₁₋₈alkyl-O-C(=O)OR¹⁰, -C₁₋₈alkyl-C(=O)NR¹⁰R¹⁰, -C₁₋₈alkyl-NR¹⁰R¹⁰,
32 -C₁₋₈alkyl-NR¹⁰C(=O)R¹⁰, -SR¹⁰, where R² is as described above and R¹⁰ is a member selected
33 from the group consisting of H, C₁₋₈alkyl, C₂₋₈alkenyl, C₂₋₈alkynyl, and wherein when two R¹⁰
34 groups are present they may be taken together to form a saturated or unsaturated ring with the
35 atom to which they are both attached;

36 G is a member selected from the group consisting of: H; -CN; -OR¹⁷;



37
38 wherein

39 t is an integer from 0 to 6,

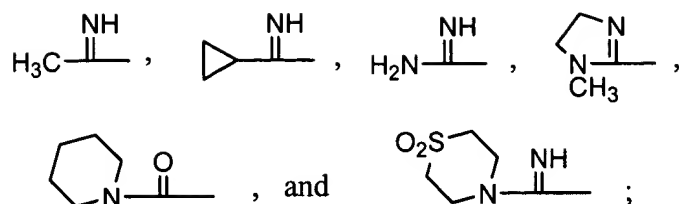
40 u is the integer 0 or 1, and R¹⁷, R¹⁸, R¹⁹, R²⁰, R²¹, R²², R²³, R²⁴, R²⁵ and R²⁶ are
41 independently selected from the group consisting of H, -OH, C₁₋₈alkyl, C₂₋₈alkenyl, C₂₋₈alkynyl,
42 C₃₋₈cycloalkyl, C₆₋₁₂carbocyclic aryl, a five to ten membered heterocyclic ring system having 1-4
43 heteroatoms selected from the group consisting of N, O and S; and C₁₋₆alkylheterocyclic ring
44 system having in the ring system 5 to 10 atoms with 1 to 4 of such atoms being selected from the
45 group consisting of N, O and S; where R¹⁸ taken with R¹⁹, R²² taken with either of R²⁴ and R²⁵,
46 and R²⁴ taken with R²⁵, can each independently form a 5 to 6 membered heterocyclic ring having
47 from 1 to 4 atoms selected from the group consisting of N, O and S;

48 with the proviso that when G is H, -CN, -OR¹⁷, either E or J must contain at least one N
49 atom;

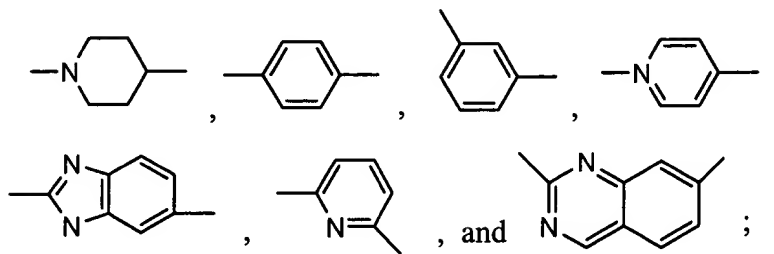
50 or a pharmaceutically acceptable diastereomer, salt, hydrate, and solvate thereof.

1 10. (Original) A compound of claim 9, wherein R¹, R⁸, R¹¹ and R¹⁴ are
2 independently selected from the group consisting of hydrogen, methyl and ethyl;

3 A is selected from the group consisting of: -H, -CH₃, -NH₂, -C(O)N(CH₃)₂,



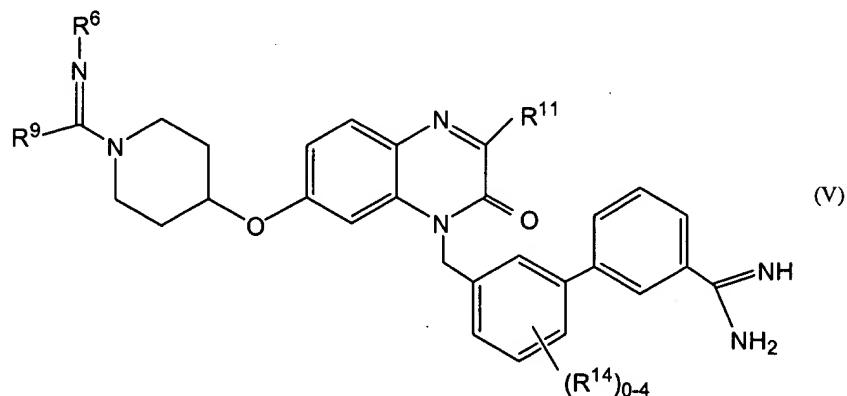
Z is selected from the group consisting of:



n is an integer from 0-2; and

D is selected from the group consisting of: -O-, -N(CH₃)-, and -CH₂-.

11. (Previously amended) A compound of formula V:



wherein:

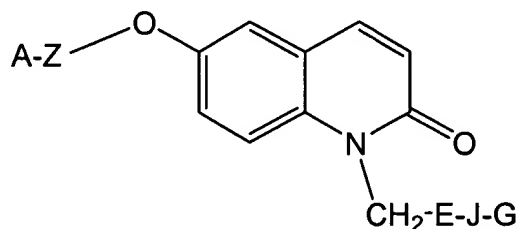
R^2 , R^6 , and R^9 are independently selected from the group consisting of H, -OH, C₁₋₈alkyl, C₂₋₈alkenyl, C₂₋₈alkynyl, C₃₋₈cycloalkyl, C₆₋₁₂carbocyclic aryl, a five to ten membered heterocyclic ring system having 1-4 heteroatoms selected from the group consisting of N, O and S; and C₁₋₆alkylheterocyclic ring system having in the ring system 5 to 10 atoms with 1 to 4 of such atoms being selected from the group consisting of N, O and S;

R^{11} is independently a member selected from the group consisting of H, C₁₋₈alkyl, C₂₋₈alkenyl, C₂₋₈alkynyl, C₃₋₈cycloalkyl, C₆₋₁₂carbocyclic aryl, C₁₋₆alkylaryl, C₁₋₆alkyl-C₃₋₈cycloalkyl, -O- R^2 , -O-C(=O) R^2 , -C₁₋₈alkyl-O- R^{10} , -C₁₋₈alkyl-O-C(=O) R^{10} ,

-C₁₋₈alkyl-C(=O)OR¹⁰, -C₁₋₈alkyl-O-C(=O)OR¹⁰, -C₁₋₈alkyl-C(=O)NR¹⁰R¹⁰, -C₁₋₈alkyl-NR¹⁰R¹⁰,
 -C₁₋₈alkyl-NR¹⁰C(=O)R¹⁰, -SR¹⁰, where R² is as described above and R¹⁰ is a member
 selected from the group consisting of H, C₁₋₈alkyl, C₂₋₈alkenyl, C₂₋₈alkynyl, and wherein when
 two R¹⁰ groups are present they may be taken together to form a saturated or unsaturated ring
 with the atom to which they are both attached;

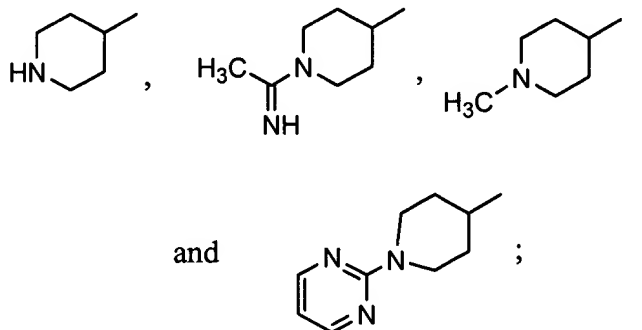
each R¹⁴ group is a member selected from the group consisting of H, C₁₋₈alkyl,
 C₂₋₈alkenyl, C₂₋₈alkynyl, C₃₋₈cycloalkyl, halogen, polyhaloalkyl, C₀₋₈alkyl-C(=O)OH,
 C₀₋₈alkyl-C(=O)O-C₁₋₈alkyl, -CN, -NO₂, C₁₋₈alkyl-OH, C₀₋₈alkyl-SH, -O-R² and -O-C(=O)R², an
 unsubstituted amino group, a mono- or di-substituted amino group, wherein the substituted
 amino groups are independently substituted by at least one member selected from the group
 consisting of H, C₁₋₈alkyl, C₂₋₈alkenyl, C₂₋₈alkynyl, C₃₋₈cycloalkyl, polyhaloalkyl,
 C₀₋₈alkyl-C(=O)OH and C₀₋₈alkyl-C(=O)O-C₁₋₈alkyl;
 or a pharmaceutically acceptable diastereomer, salt, hydrate, and solvate thereof.

12. (Original) A compound having the following structure:

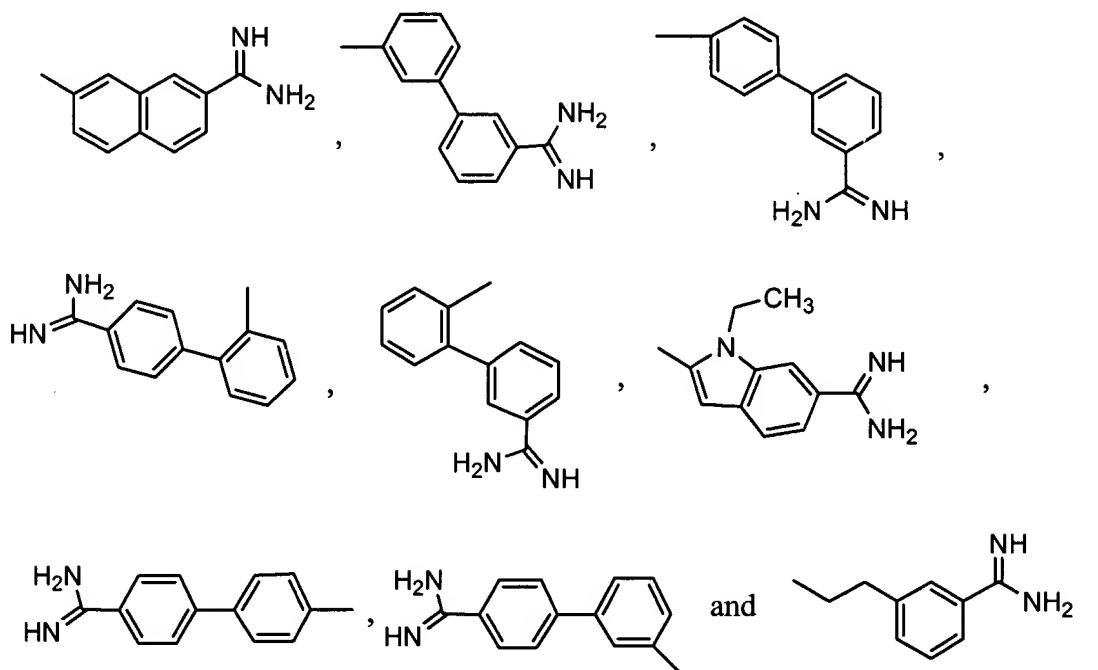


wherein:

A-Z is a member selected from the group consisting of:



6 E-J-G is a member selected from the group consisting of:



7 and all pharmaceutically acceptable isomers, salts, hydrates, solvates and prodrug derivatives
8 thereof.

1 13. (Currently amended) A pharmaceutical composition for preventing or
2 treating a condition in a mammal characterized by undesired thrombosis comprising a
3 pharmaceutically acceptable carrier and a therapeutically effective amount of a compound as in
4 one of claims ~~1-12~~ 5-12.

1 14. (Currently amended) A method for preventing or treating a condition in a
2 mammal characterized by undesired thrombosis comprising administering to said mammal a
3 therapeutically effective amount of a compound as in one of claims ~~1-12~~ 5-12.

1 15. (Original) The method of claim 14, wherein the condition is selected from
2 the group consisting of:

3 acute coronary syndrome, myocardial infarction, unstable angina, refractory angina,
4 occlusive coronary thrombus occurring post-thrombolytic therapy or post-coronary angioplasty,
5 a thrombotically mediated cerebrovascular syndrome, embolic stroke, thrombotic stroke,
6 transient ischemic attacks, venous thrombosis, deep venous thrombosis, pulmonary embolus,

7 coagulopathy, disseminated intravascular coagulation, thrombotic thrombocytopenic purpura,
8 thromboangiitis obliterans, thrombotic disease associated with heparin-induced
9 thrombocytopenia, thrombotic complications associated with extracorporeal circulation,
10 thrombotic complications associated with instrumentation such as cardiac or other intravascular
11 catheterization, intra-aortic balloon pump, coronary stent or cardiac valve, and conditions
12 requiring the fitting of prosthetic devices.

1 16. (Currently amended) A method for inhibiting the coagulation of
2 biological samples comprising the administration of a compound as in one of claims ~~1-12~~ 5-12.